

**REMARKS**

**I. INTRODUCTION**

1, 2, 4-7 and 10-68 remain pending in this application. No new matter has been added. It is respectfully submitted that based on the following remarks, all of the presently pending claims are in condition for allowance.

**II. THE 35 U.S.C. § 112 REJECTIONS SHOULD BE WITHDRAWN**

Claims 34-51 stand rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. (See 04/28/2009 Final Office Action, p. 4, lines 12-14).

In the Response to Argument, the Examiner states, without providing any basis or reference to an authority:

If the claims recite “computer system” as a narrow limitation, it falls in the broad range of means plus functions. The claims recite the means plus function without hardware connected to scope of “computer system”, then the scope of the claim is indefinite. Furthermore, the means plus functions recited in the claims fail to be identified with the structure, material, or acts described in the specification as corresponding to each claimed functions. Within the scope of the claims, it is unable to interpret the term “computer system” as a hardware machine. Since its means plus functions cover all other things include [*sic*] software elements, the recitations render the claims indefinite. (See *Id.*, p. 3, lines 1-8).

Again, Applicants note that the Examiner has failed to provide any citation to relevant laws, rules, cases, or precedent of any form to support the Examiner’s conclusionary argument. While the Examiner may feel compelled to serve as his own authority when determining the patentability of a claim, Applicants would like to direct the Examiner’s attention to a relevant portion of the Manual of Patent Examining Procedure, or “M.P.E.P.” According to § 2181 of the M.P.E.P., entitled “Identifying a 35 U.S.C. 112, Sixth Paragraph Limitation”:

This section sets forth guidelines for the examination of § 35 U.S.C. 112, sixth

paragraph, “*means or step plus function*” limitations in a claim. These guidelines are based on the Office’s current understanding of the law and are believed to be fully consistent with binding precedent of the Supreme Court, the Federal Circuit and the Federal Circuit’s predecessor courts. These guidelines do not constitute substantive rulemaking and hence do not have the force and effect of law...

*If one skilled in the art would be able to identify the structure, material or acts from the requirements in the specification for performing the recited function, then the requirements of 35 U.S.C. § 112, second paragraph, are satisfied.* See Dossel, 115 F.3d at 946-47, 42 USPQ2d at 1885 (The function recited in the means-plus-function limitation involved “reconstructing” data. The issue was whether the structure underlying this “reconstructing” function was adequately described in the written description to satisfy 35 U.S.C. § 112, second paragraph. *The court stated that “[n]either the written description nor the claims uses the magic word ‘computer,’ nor do they quote computer code that may be used in the invention. Nevertheless, when the written description is combined with claims 8 and 9, the disclosure satisfies the requirements of Section § 112, Para. 2.”* The court concluded that based on the specific facts of the case, *one skilled in the art would recognize the structure for performing the “reconstructing” function since “a unit which receives digital data, performs complex mathematical computations and outputs the results to a display must be implemented by or on a general or special purpose computer.”*). See also Intel Corp. v. VIA Technologies, Inc, 319 F.3d 1357, 1366, 65 USPQ2d 1934, 1941 (Fed. Cir. 2003) (The “core logic” structure that was modified to perform a particular program was held to be adequate corresponding structure for a claimed function although the specification did not disclose internal circuitry of the core logic to show exactly how it must be modified.). (See M.P.E.P. § 2181, Introduction and (III) (B) (1)). (Emphasis added).

As noted by the Examiner, the specification clearly provides sufficient support for the claimed “computer system” performing the claimed “means plus function”, and even includes numerous references to the “magic word ‘computer’”. Specifically, the specification states: “In the following description, for purposes of explanation and not limitation, specific details are set forth, such as *particular systems, computers, devices, components, techniques, computer languages, storage techniques, software products and systems, operating systems, interfaces, hardware, etc. in order to provide a thorough understanding of the present invention...*” (See Specification, p. 2, ¶ [0023]). Furthermore, Fig. 7 provides a detailed illustration of an exemplary computer system, complete with processing units, memory, workstations (e.g., laptops, desktops, etc.), servers, interface devices, etc. (See Id., p. 5, ¶ [0059]; and Fig. 7). The Examiner goes so far as to state, “[i]t is known that a computer comprises the hardware elements such as processor, memory, peripheral devices, etc.” (See

04/28/2009 Final Office Action, p. 4, lines 17-19). Accordingly, Applicants find it extremely difficult to believe that one of skill in the art of computer science would fail to understand the phrase “computer system” upon reading the claims, reading the specification, and viewing the figures of the present application. As noted above by the Federal Court, “[i]f one skilled in the art would be able to identify the structure, material or acts from the description in the specification for performing the recited function, then the requirements of 35 U.S.C. § 112, second paragraph, are satisfied.”

In reference to claim 34, these “means plus function” elements include means for “insulating application code...”, means for “constructing a loadable module...”, means for “constructing an executable program...”, and means for “loading the loadable module, passing arguments, terminating and unloading the loadable module, etc.” Each of these means are performed by the claimed computer system, which one skilled in the art of computer science would clearly recognize as a structural element disclosed in the specification, namely a computer or other processing devices. Thus, Applicants respectfully maintain the position that the language in claim 34 is definite and the claim should not have been rejected under 35 U.S.C. § 112. Because claims 35-46 depend from, and, therefore, include all of the limitations of claim 34, it is respectfully submitted that these claims are also allowable for at least the reasons stated above. For the reasons previously discussed with reference to claim 34, it is respectfully submitted that claim 47 also should not have been rejected under 35 U.S.C. § 112. Because claims 48-51 depend from, and, therefore, include all of the limitations of claim 47, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

### **III. THE 35 U.S.C. § 101 REJECTIONS SHOULD BE WITHDRAWN**

Claims 34-51 stand rejected under 35 U.S.C. § 101 for including “software per se that fails to meet 35 USC 101”. (See 04/28/2009 Final Office Action, p. 6, lines 5-6). Again, the Examiner fails to provide any basis or reference to an authority for such a rejection, other than citing the first sentence of 35 U.S.C. § 101. The Examiner reiterates this unsupported assertion in his Response to Arguments in stating: “[t]he claim is interpreted as software; software per se fails to meet the statutory claim.” (See *Id.*, p. 3, lines 9-10). Apparently, the Examiner has made

this rejection on the basis that these claims are directed to nothing other than “software per se.” The Federal Circuit has recently rejected this “software per se” argument in *In re Bilski*, \_\_\_ F.3d \_\_\_, 2008 WL 4757110, 88 USPQ2d (BNA) 1385 (Fed. Cir. Oct. 30, 2008). (hereinafter “*In re Bilski*”). In footnote 23, the Federal Circuit states “although invited to do so by several amici, we decline to adopt a broad exclusion over software or any other such category of subject matter beyond the exclusion of claims drawn to fundamental principles set forth by the Supreme Court.” *In re Bilski* goes on to state:

Read in context, section 101 gives further reasons for interpretation without innovation. Specifically, section 101 itself distinguishes patent eligibility from the conditions of patentability—providing generously for patent eligibility, but noting that patentability requires substantially more. The language sweeps in “any new and useful process . . . [and] any improvement.” 35 U.S.C. § 101 (emphasis supplied). As an expansive modifier, “any” embraces the broad and ordinary meanings of the term “process,” for instance. *The language of section 101 conveys no implication that the Act extends patent protection to some subcategories of processes but not others. It does not mean “some” or even “most,” but all.*

Unlike the laws of other nations that include broad exclusions to eligible subject matter, such as European restrictions on *software and other method patents*, see European Patent Convention of 1973, Art. 52(2)(c) and (3), and prohibitions against patents deemed contrary to the public morality, see *id.* at Art. 53(a), *U.S. law and policy have embraced advances without regard to their subject matter.* That promise of protection, in turn, fuels the research that, at least for now, makes this nation the world’s innovation leader. (*See In re Bilski*). (Emphasis added).

Accordingly, this unsupported categorical exclusion of software per se imposed by the Examiner appears to be in direct opposition to the holdings by the Federal Circuit. Furthermore, as noted above with reference to the 35 U.S.C. § 112 rejections, one skilled in the art of computer science would understand that the methods performed by the computer system of claim 34 are clearly tied to a structural element of a computer. Thus, Applicants respectfully maintain the position that the language in claim 34 should not have been rejected under 35 U.S.C. § 101. Because claims 35-46 depend from, and, therefore, include all of the limitations of claim 34, it is respectfully submitted that these claims are also allowable for at least the reasons stated above. For the reasons previously discussed with reference to claim 34, it is respectfully submitted that claim 47 also should not have been rejected under 35 U.S.C. § 101. Because claims 48-51

depend from, and, therefore, include all of the limitations of claim 47, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

**IV. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN**

Claims 1, 2, 4-7 and 10-68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,136,709 to Shirakabe et al. (hereinafter “Shirakabe”) in view of U.S. Patent No. 5,778,226 to Adams et al. (hereinafter “Adams”). (See 04/28/2009 Final Office Action, p. 6, lines 20-21).

Initially, it should be noted that in the Response to Arguments, the Examiner, once again, provides an uncited and unsupported statement. Specifically, the Examiner provides a definition of Dynamic Link Libraries (DLL). (See Id., p. 2, lines 9-30). Due to the fact that the Examiner fails to offer any citation or authority for this definition, Applicants shall interpret this definition to be based on the Examiner’s personal knowledge. However, as noted in the M.P.E.P., “there must be some form of evidence in the record to support an assertion of common knowledge. See Lee, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002); Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697 (holding that general conclusions concerning what is ‘basic knowledge’ or ‘common sense’ to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection).” (See MPEP § 2144.03(b)). The Examiner does not provide any evidence that his definition of a DLL would be basic knowledge to one of ordinary skill in the art. The only support that the Examiner provides for his assertion is his personal knowledge in stating, “[i]t should be noted that”... Furthermore, according to the M.P.E.P., “if the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding.” (See MPEP § 2144.03(c); and 37 CFR 1.104(d)(2)). Thus, Applicant respectfully submits that without the requisite affidavit or declaration to support the Examiner’s use of personal knowledge is improper. Accordingly, Applicants respectfully requests for the Examiner to produce authority for his definition of DLLs. Furthermore, any opinion held by the Examiner as to whether the claimed language conforms to his personal definition of a DLL

should not serve as a basis to reject a claim.

Referring now to the arguments in which the Examiner provided support for, claim 1 recites “wherein the insulating of the application code allows the application code to perform a function by executing a routine that is standard to the application code instead of by using a routine that pertains to the running operating system kernel.” The advantage of this feature is summarized at paragraph [0037], which states:

As discussed above, environment library 112 includes one or more routines for insulating application code 102 from the operating system environment and implementing a uniform execution environment. That is, instead of depending on a changeable and specialized operating system interface, the program can use standard “C” interfaces--or alternatively, any standard application programming interface. For example, in the current embodiment of the invention, instead of using a Linux kernel “sys\_open” operation applied to some terminal device so that the program can output data, the program can simply use the standard “printf” routine. Instead of using some OS dependent routine for generating a thread, the program can use “pthread\_create”—a POSIX standard function. (See Specification, p. 3, ¶ [0037]).

In contrast to claim 1, Shirakabe requires an application code to use a non-standard routine that is specific to the operating system environment of the kernel to which it is linked. Specifically, linkage editor 7 links kernel 3 and driver 5, and as a result of this linkage, driver 5 calls for the execution of a routine in the kernel 3. Specifically, Shirakabe describes a kernel routine KSUBm. The linkage editor 7 creates a load module 26 corresponding to the driver 5 and a load module 4 corresponding to the kernel. The purpose is so that “by use of the load module 26 containing the driver 6 thus separately generated, the routine in the load module 4 of the kernel 3 can be called.” (See Shirakabe, col. 6, lines 27-30). Thus, no insulation of the kind recited in the claim occurs in Shirakabe; indeed, quite the opposite occurs since the driver is required by the linkage editor 7 to call the routine of the kernel. As stated in the Background of the present specification, this absence of insulation from the operating system environment is disadvantageous because it requires the application code to depend on OS dependent routines, which is more complex, time-consuming, and error-prone than merely using the routines standard to the application code. Furthermore, neither the Examiner’s Response to Arguments nor the Claim Rejections, pinpoints any language within the Shirakabe disclosure that teaches or suggests each of the limitations recited in claim 1, such as, at least, “...an environment library

comprising one or more routines for insulating the application code from the operating system environment and for implementing a uniform execution environment, *wherein the insulating of the application code allows the application code to perform a function by executing a routine that is standard to the application code instead of by using a routine that pertains to the running operating system kernel...*

As for Adams, it too shows the same type of non-insulating linkage between driver and kernel that was shown to be deficient in Shirakabe. Specifically, as seen in Fig. 1 of Adams, interface 4 provides a linkage between device driver description tables 8 and kernel 1 that does not insulate driver from the operating system environment in the manner recited in the claim. (See Adams, Fig. 1). Accordingly, withdrawal of the rejection of claim 1 is respectfully requested. Because claims 2, 4, and 10-20 depend from, and, therefore, include all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

For at least the reasons previously discussed with reference to claim 1, it is respectfully submitted that claim 5 is also allowable over Shirakabe in view of Adams. Because claims 6 and 7 depend from, and, therefore, include all of the limitations of claim 5, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

For at least the reasons previously discussed with reference to claim 1, it is respectfully submitted that claim 21 is also allowable over Shirakabe in view of Adams. Because claims 22-33 depend from, and, therefore, include all of the limitations of claim 21, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

For at least the reasons previously discussed with reference to claim 1, it is respectfully submitted that claim 34 is also allowable over Shirakabe in view of Adams. Because claims 35-43 depend from, and, therefore, include all of the limitations of claim 34, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

For at least the reasons previously discussed with reference to claim 1, it is

respectfully submitted that claim 47 is also allowable over Shirakabe in view of Adams. Because claims 48-51 depend from, and, therefore, include all of the limitations of claim 47, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

For at least the reasons previously discussed with reference to claim 1, it is respectfully submitted that claim 52 is also allowable over Shirakabe in view of Adams. Because claims 53-68 depend from, and, therefore, include all of the limitations of claim 52, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.



V. **CONCLUSION**

In view of the above remarks, it is respectfully submitted that all the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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